

**HORIZONTALLY STRUCTURED MANUFACTURING PROCESS
MODELING FOR FIXTURES AND TOOLING**

ABSTRACT OF THE DISCLOSURE

Disclosed is a method of horizontally structured CAD/CAM manufacturing for fixtures and tooling comprising: selecting a contact area geometry; creating extracts from a master process model; generating a tooling model corresponding to the contact area geometry; virtual machining the tooling model to generate the fixtures and tooling; and generating machining instructions and drawings to create the fixtures and tooling; where the tooling model exhibits an associative relationship with the contact area geometry. Also disclosed is a manufactured part created by a method of horizontally structured CAD/CAM manufacturing for fixtures and tooling comprising: a contact area geometry selected from a master process model for tooling or fixture modeling; extracts created from the master process model; a tooling model corresponding to the contact area geometry including virtual machining the tooling model to generate the fixtures and tooling; where the fixtures and tooling are created by machining in accordance with a machining instruction; and the tooling model exhibits an associative relationship with the contact area geometry. Also disclosed is a storage medium encoded with a machine-readable computer program code for horizontally structured CAD/CAM manufacturing. The storage medium including instructions for causing a computer to implement the method of horizontally structured CAD/CAM modeling and manufacturing for fixtures and tooling. Additionally disclosed is a computer data signal for horizontally structured CAD/CAM manufacturing. The computer data signal comprising code configured to cause a processor to implement a method of horizontally structured CAD/CAM modeling and manufacturing for fixtures and tooling.

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